

## PATENT

## AMENDMENTS TO THE CLAIMS

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- 1           1.       (Previously Presented) The dynamic content caching and retrieval system of  
2 claim 45 further comprising:  
3           a subsequent presentation state computation routine operable to cause at least one  
4           subsequent presentation state to be computed based on the presentation state  
5           signature; and  
6           a presentation state signature computation routine operable to determine a presentation  
7           state signature for one or more subsequent presentation states.
- 1           2.       (Previously Presented) The dynamic content caching and retrieval system of  
2 claim 45 wherein the subsequent presentation state computation routine and the presentation  
3 state signature computation routine are encoded in the computer readable medium as instructions  
4 executable on the processor, and the computer readable medium being one of a magnetic storage  
5 medium, an optical storage medium, and a communications medium conveying signals encoding  
6 the instructions.
- 1           3.       (Previously Presented) The dynamic content caching and retrieval system of  
2 claim 45 wherein at least a portion of the presentation information is encoded in a markup  
3 language.
- 1           4.       (Previously Presented) The dynamic content caching and retrieval system of claim  
2 3 wherein the markup language is one of Hypertext Markup Language (HTML) and Extensible  
3 Markup Language (XML).
- 1           5.       (Previously Presented) The dynamic content caching and retrieval system of claim  
2 1 further comprising a presentation information computation routine operable to compute  
3 subsequent presentation information based upon the at least one subsequent presentation state.
- 1           6.       (Currently Amended) The dynamic content caching and retrieval system of claim  
2 45 further comprising:  
3           a plurality of additional computer readable representations from one or more client  
4           computing computer systems, each of the computer readable representations

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5 having a presentation state signature based on a presentation state defined, at least  
6 in part, by one or more parameters selected by a user interacting with a file  
7 displayed by one of the client ~~computing system~~ computer systems that are useful  
8 to identify one of the dynamically generated electronic files in which stored  
9 presentation information is associated with the presentation state upon which the  
10 signature is based;

11 wherein the routine is further executable by the processor to determine if the presentation  
12 state signatures of the computer readable representations identify one of the  
13 dynamically generated electronic files stored in the memory of the system,  
14 retrieving the described dynamically generated electronic files, and serving the  
15 retrieved files to the client computer system from which the computer readable  
16 representation was received.

1 7. (Previously Presented) The dynamic content caching and retrieval system of claim  
2 6 further comprising:  
3 a subsequent presentation state computation routine operable to cause at least one  
4 subsequent presentation state to be computed based on each presentation state  
5 signature; and  
6 a presentation state signature computation routine operable to determine a presentation  
7 state signature for each subsequent presentation state.

1 8. (Canceled).

1 9. (Currently Amended) The dynamic content caching and retrieval system of claim  
2 1 wherein ~~wherein~~ the computer readable representation is a uniform resource locator that  
3 includes a filename and state information for one of the dynamically generated electronic files.

1 10. (Canceled).

1 11. (Previously Presented) The dynamic content caching and retrieval system of claim  
2 45 further comprising a file cache operable to store the dynamically generated electronic files.

1 12. (Previously Presented) The dynamic content caching and retrieval system of claim  
2 11 wherein the file cache is a file server computer system.

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B 1 13. (Previously Presented) The dynamic content caching and retrieval system of claim  
2 45 wherein the presentation state signature computation routine uses a hashing function to  
3 determine the presentation state signature.

1 14. (Previously Presented) The dynamic content caching and retrieval system of claim  
2 13 wherein the hashing function is a one-way hashing function.

1 15. (Previously Presented) The dynamic content caching and retrieval system of claim  
2 14 wherein the one-way hashing function is one of Snefru, N-Hash, MD5, Secure Hash  
3 Algorithm (SHA), RIPE-MD, and HAVAL.

16. (Canceled).

1 17. (Previously Presented) The dynamic content caching and retrieval system of claim  
2 6 wherein each computer readable representation is a Universal Resource Locator (URL)  
3 comprising the presentation state signature based on the presentation state.

1 18. (Canceled).

1 19. (Currently Amended) The dynamic content caching and retrieval system of claim  
2 45 wherein the computer readable medium further includes state information that at least one  
3 subsequent presentation state includes version information of the file displayed by the client  
4 computing computer system.

1 20. (Canceled).

1 21. (Previously Presented) The dynamic content caching and retrieval system of claim  
2 1 further comprising a file cache and a look-ahead manager, the look-ahead manager operable to  
3 perform at least one of:

4 determining if the file cache includes a dynamically generated electronic file having  
5 presentation information characterized by the presentation state signature for one  
6 or more subsequent presentation states; and  
7 causing a presentation information computation routine to compute subsequent  
8 presentation information based upon one or more subsequent presentation states.

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1 22. (Previously Presented) The dynamic content caching and retrieval system of claim  
2 21 wherein the determining if the file cache includes a dynamically generated electronic file  
3 includes searching the file cache for a file having a filename including the presentation state  
4 signature from the computer readable representation.

1 23. (Previously Presented) The dynamic content caching and retrieval system of claim  
2 45 further comprising a web server application operable to receive the computer readable  
3 representation and to serve the retrieved file to the client computer system.

1 24. (Previously Presented) The dynamic content caching and retrieval system of claim  
2 45 wherein the routine comprises a web server application.

25. (Canceled).

1 26. (Currently Amended) The dynamic content caching and retrieval system of claim  
2 45 wherein the client ~~computing~~ computer system is one of a plurality of interconnected client  
3 ~~computing~~ computer systems operating in a distributed computing environment and coupled to a  
4 server computer system.

1 27. (Currently Amended) The dynamic content caching and retrieval system of claim  
2 26 wherein the plurality of interconnected client ~~computing~~ computer systems and the server  
3 computer system are coupled via a network.

1 28. (Previously Presented) The dynamic content caching and retrieval system of claim  
2 27 wherein the network is the Internet and each of the files are web pages.

1 29. (Currently Amended) A method of caching and retrieving cached dynamically  
2 generated files that each include presentation information characterized by respective  
3 presentation states, wherein each dynamically generated file is associated with a file identifier  
4 that is derived from state information that describes contents of the associated dynamically  
5 generated electronic file and the file is operable to be provided by an application running on a  
6 server computer system to at least one client computer system, the method comprising:  
7 receiving a file request that includes state information based on selections of a user  
8 interacting with a web page using at least one client computer system;

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9 determining whether the file request identifies one of the cached dynamically generated  
10 files;  
11 retrieving the dynamically generated file identified by the file request and transmitting  
12 the file to the at least one client computer system if the file exists in a cache;  
13 computing presentation information based on the information in the file request when a  
14 dynamically generated file does not exist in the cache; and  
15 saving the computed presentation information in a file in the cache, thus creating a  
16 dynamically generated file, and transmitting the dynamically generated file to the  
17 at least one client computer system.

1 30. (Original) The method of claim 29 wherein the file request includes at least one of  
2 a filename based on the first state, and first state information.

1 31. (Previously Presented) The method of claim 29 wherein the file request includes a  
2 filename computed from the information based on selections by a user interacting with a web  
3 page using a hash function.

1 32. (Previously Presented) The method of claim 3 wherein the hash function is a one-  
2 way hash function.

1 33. (Original) The method of claim 29 wherein the file request is a URL.

1 34. (Previously Presented) The method of claim 29 wherein the determining whether  
2 the file request identifies one of the cached dynamically generated files further comprises  
3 monitoring for a file not found error, and computing the presentation information when a file not  
4 found error occurs.

1 35. (Original) The method of claim 34 wherein the file not found error is an HTTP  
2 error 404.

1 36. (Currently Amended) The method of claim 29 wherein the computing presentation  
2 information further comprises:  
3 computing at least one subsequent state based on the the selections by a user interacting  
4 with a web page;

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5 computing a signature of the at least one subsequent state based on at least one  
6 subsequent state; and  
7 including the signature of the at least one subsequent state and the at least one subsequent  
8 state in the presentation information.

1 37. (Original) The method of claim 29 encoded in a computer readable medium as  
2 instructions executable on a processor, the computer readable medium being one of a magnetic  
3 storage medium, an optical storage medium, and a communications medium conveying signals  
4 encoding the instructions.

1 38. (Previously Presented) Dynamically generated files created in accordance with the  
2 method of claim 29.

1 39. (Previously Presented) The dynamically generated files of claim 38 wherein at  
2 least a portion of the presentation information of each dynamically generated file is encoded in a  
3 markup language.

1 40. (Original) The file of claim 39 wherein the markup language is one of Hypertext  
2 Markup Language (HTML) and Extensible Markup Language (XML).

1 Claims 41-43 (Canceled).

1 44. (Previously Presented) The dynamically generated files of claim 38 wherein the  
2 web page is a product configuration web page and the file request is a Universal Resource  
3 Locator (URL) that includes state information comprising information based on user  
4 configuration selections.

1 45. (Currently Amended) A dynamic content caching and retrieval system that  
2 facilitates reusability of dynamically generated electronic files, the system comprising:  
3 a processor;  
4 a computer readable medium coupled to the processor;  
5 dynamically generated electronic files stored in a storage medium, each dynamically  
6 generated electronic file includes an identifier that ~~is derived from~~ identifies  
7 dynamically generated presentation information stored in the file; and

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8 a computer readable representation received by the system from a client ~~computing~~  
9 computer system, the computer readable representation having a presentation state  
10 signature based on a presentation state defined, at least in part, by one or more  
11 parameters selected by a user interacting with a file displayed by the client  
12 ~~computing computer system, that are wherein the computer readable~~  
13 representation is useful to identify one of the dynamically generated electronic  
14 files in which stored presentation information is associated with the presentation  
15 state upon which the signature is based;  
16 wherein the computer readable medium includes a routine executable by the processor to  
17 determine if the presentation state signature of the computer readable  
18 representation identifies one of the dynamically generated electronic files stored  
19 in the memory of the system, ~~retrieving the described~~ to retrieve any identified  
20 dynamically generated electronic file, and serving to serve the retrieved file to the  
21 client computer system.

1 46. (Currently Amended) A dynamic content caching and retrieval system that  
2 facilitates reusability of cached dynamically generated electronic files, the system comprising:  
3 means for caching the dynamically generated electronic files and associating a respective  
4 file identifier with each of the dynamically generated electronic files, wherein  
5 each file identifier is derived from state information that describes contents of the  
6 associated dynamically generated electronic file;  
7 means for receiving a file request that includes state information based on selections of a  
8 user interacting with a web page using at least one client computer system;  
9 means for determining whether the file request identifies one of the cached dynamically  
10 generated electronic files;  
11 means for ~~means for~~ retrieving the dynamically generated electronic file identified by the  
12 file request and transmitting the file to the at least one client computer system if  
13 the file exists in a cache;  
14 means for computing presentation information based on the information in the file  
15 request when a dynamically generated file does not exist in the cache; and

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16 means for saving the computed presentation information in a file in the cache, thus  
17 creating a dynamically generated file, and transmitting the dynamically generated  
18 file to the at least one client computer system.

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B2 1 47. (New) The dynamic content caching and retrieval system of claim 45 wherein the  
2 one or more parameters selected by a user include configuration options selections.

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